

REMARKS

This amendment is submitted with a Petition for Extension of Time extending the time for response from December 7, 2001 to January 7, 2002. Replacement paragraph format has been changed in response to a Notice of Non-Compliant Amendment mailed December 12, 2001.

Reexamination and reconsideration of claims 72 and 73 is respectfully requested. Applicants acknowledge the statement that prosecution is reopened, and that the amendment after final rejection received June 15, 2001, has been entered and prosecution proceeds with the claims as amended therein.

The drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 43 (see Fig. 7). A replacement sheet is submitted herewith adding text relating to reference number 43. Withdrawal of the objection is requested.

Claims 73 and 72 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants clarify the invention as follows.

The Office Action notes that it appears the "respectively having a pipe" refers to a "cable" pipe as opposed to a spigot "pipe." In an embodiment of the present invention, the cable lead-in unit 13 (Figs. 6-7) is associated with a pipe 43 surrounding a cable and is connected in a pressure-tight manner, with the aid of an adaptation sleeve 87, a component of unit 13. The optical waveguides 11 are led in through this cable lead-in unit 13 and deposited in excess lengths on a plurality of levels within the closure space. See page 12 of the specification, lines 12-19. Thus claim 73 is supported by disclosure indicating that the pipes are receivable in units 13, for example, in adaptation sleeve 87 as a part of the unit 13.

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The specification describes pipe [43] of the outgoing microcable (Figs. 6-7) takes place in turn via a cable lead-in unit 13, which is arranged here on the level of the storage space 28a for the outgoing optical waveguides 38. The sleeve-shaped cable lead-in units 13 are shown diagrammatically as crimpable lead-throughs, but according to the special configuration provided by the invention they may also be fitted on tangentially. See page 13 of the specification, lines 1-9. It is believed the foregoing clarification, and amendment to the specification, warrants withdrawal of the sec. 112 rejection, and the same is respectfully requested.

Claims 73 and 72 were rejected under 35 U.S.C. 103(a) as being unpatentable over Finzel (GB 2277812). This rejection is respectfully traversed for reasons that follow.

The cables of the present invention are advantageously not in contact with dirt, as is the case with the buried cables taught by Finzel, and no bushing seal between the cable and pipe is required in the present invention. It is submitted that the flexible cables 7 of Finzel have a pipe, but it is not in sealing connection with a pipe of a microcable. As set forth hereinabove, it is noted that the Finzel cable is received in the pipe 25 of the cable inlet and may have a seal of expanded material for preventing the entry of dust (or dirt). However, it is submitted that there is not a "first" connection between a pipe of the cable and the pipe 25 as claimed. In fact, the cables 7 of Finzel are surrounded by dirt and are movable in the cable inlet pipes 25.

In other words, a problem solved by the present claimed invention is pipe-to-pipe connections of underground closures; however, the skilled artisan would have understood that the Finzel disclosure deals with the problem of buried cable-to-buried container connection, a completely different problem, the cable of Finzel (beyond item 25) is embedded in dirt, not

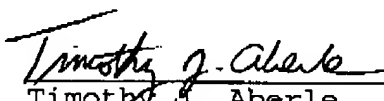
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protected by a pipe. According to Finzel, the cables 7 to be connected in the module are guided through resilient cable inlet pipes 25 which are inserted into and retained by cable inlet nozzles 5 in the underground container. The cables are movable in the cable inlet pipes, and can be protected from dirt by, for example, a bushing seal of expanded material or a wide-meshed fabric 26. See the Finzel disclosure page 4, lines 6-13.

As noted in the specification, fiber optic cables of the present claimed invention are disposed in cable pipes. An object of the claimed invention is to provide a cable closure for optical waveguides which is suitable for easy-to-lay minicables or microcables, these minicables or microcables comprising pipes in which optical waveguides or optical waveguide bundles are disposed. See page 2a of the instant specification, lines 1-5. Thus the fiber optic cables of the present invention are protected in a pipe, as claimed. Advantageously, no bushing seal is required.

Withdrawal of the sec. 103(a) rejection is believed to be warranted and is respectfully requested.

Respectfully submitted,

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE  
IN THE SPECIFICATION:

Represented in Figure 6 is a cylindrical cable closure 5 for microcables, which is closed off towards the earth side in a hood shape and is accessible from the surface 6 via a cover 20. The cover 20 can withstand high loading and closes off the cable closure 5 pressure-watertightly by means of a sealing system 21. In the case of this embodiment shown, the cable lead-in unit 13 is housed in the upper part of the closure, to which the pipe 43 (Fig. 7) of the microcable is connected in a pressure-tight manner, with the aid of an adaptation sleeve 87. The optical waveguides 11 are led in through this cable lead-in unit 13 and deposited in excess lengths on a plurality of levels within the closure space. Here, the excess lengths 30 of the led-in optical waveguides are stored in the upper deck 28 and the excess lengths 38 of the outgoing optical waveguides are stored in the lower deck 28a. The lead-throughs 41 in the respective separating plates 29 make it possible for the optical waveguides to be led through from one level to the other. The lower region of the cable closure serves as splicing space 23, in which the splices 26 are fastened on removable splice organizers 32. If service or splicing work is necessary, after removal of the cover 20 the excess-length assemblies 30 and 38 are taken out, so that finally the splice organizers can be removed. The hood-shaped termination of the inner wall 22 of the cable closure 5 is curved such that it can serve as a guide for the optical waveguides 31 leading to the splices. The marking 25 is intended to indicate that corresponding guides for optical waveguides or optical waveguide groups can also be used in the splicing space, allowing the clarity of the arrangement to be improved. The leading away of the optical waveguides into the connected pipe of the outgoing microcable takes place in turn via a cable lead-in unit 13, which

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is arranged here on the level of the storage space 28a for the outgoing optical waveguides 38. The sleeve-shaped cable lead-in units 13 are drawn here diagrammatically as crimpable lead-throughs, but according to the special configuration provided by the invention they may also be fitted on tangentially, so that here too the advantages described above come to bear.

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